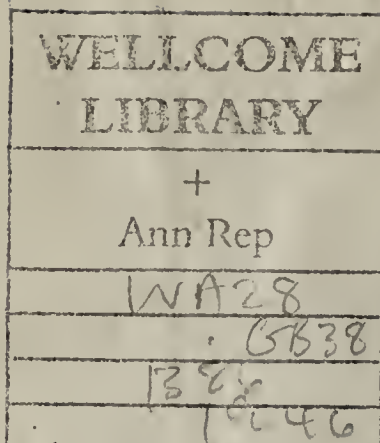




BRITISH HONDURAS

Annual Medical and Sanitary Report
for the year 1946.



BRITISH HONDURAS
ANNUAL MEDICAL REPORT
FOR THE YEAR ENDING
31ST DECEMBER, 1946.

Finances. The Estimated Expenditure of the Department for the year under review was \$220,037.00 which was 8.63% of the Estimated Revenue of the Colony.

The actual expenditure was \$203,576.74. It should be pointed out, however, that this figure of actual expenditure included the sum of \$33,048.00 which was expended on scavenging of Belize and the district towns. Scavenging is not of course usually the duty of a Medical Department, but of the various Municipal authorities. That proportion of Revenue used by the Medical Department is not therefore strictly comparable with figures from other Medical Departments of other Colonies.

2. *Relevant Legislation.* The Quarantine Ordinance No. 1 of 1946. S. R. & O. No. 5 of 1946—"Proclamation ordering a general Census".

S. R. & O. No. 35 of 1946—"Defining the Boundaries of the Northern District".

S. R. & O. No. 36 of 1946—"Defining the Boundaries of the Belize District".

MEDICAL ESTABLISHMENT.

3. *Staff.* In my Report for the year 1945 I wrote—"For the greater part of the year the Medical Staff instead of comprising the Senior Medical Officer and eight Medical Officers consisted of the Senior Medical Officer and three Medical Officers with assistance from three other practitioners". This situation did not improve until September of the year under review when Dr. Degazon and Dr. Ram returned to duty.

Dr. Degazon had been taking a course in Ophthalmic medicine and surgery—under the auspices of a Colonial Development and Welfare Scheme. His period of post-graduate study terminated in his success not only in the examination for the D.O.M.S. but also for the F.R.C.S. (Edin.)

Dr. Ram had been on active service.

Dr. G. G. Smith arrived in September as Medical Officer.

Dr. C. H. Sparrow who had left on vacation leave in March resigned in November.

Dr. Alberto di Nepi, a private practitioner in Belize, was employed on part time duties from January to September.

4. In my report of 1945 I stated that "any programme involving.....medical officers was disrupted". This disruption continued into the whole of the year 1946—as the uncertainty as to the time of return of the absent Medical Officers and of the filling of vacant posts made it impossible to plan further than week to week.

The shortage of Medical Staff had repercussions in the Nursing Staff—in that the programme of Nursing Training which had had so excellent a start two years before now completely broke down. It meant that there would be a hiatus of one year in the programme of the annual introduction of student nurses.

The training of Rural Nurses and Village Midwives also suffered this disruption—and thus the programme for the improvement of Rural Health suffered its first setback. But while the first essential in this programme, that is, the training of proper personnel, could not be proceeded with because of lack of Medical Officers to train the Nurses an effort to further rural Health from another aspect was undertaken. This was the aspect of sanitary betterment—the provision of adequate water supplies and proper drainage and sewage disposal in the district towns and villages. A proposition to add a sanitary engineer to the Medical Department Staff was being studied (the proposition came to nothing) and a question concerning the employment of this engineer was referred to the Havana Office of the International Health Division of the Rockefeller Foundation. The Foundation replied by suggesting that as their Consulting Sanitary Engineer was visiting a neighbouring country he could, if invited, not only answer the question in person but also give any other information at his disposal during his visit.

This offer was eagerly accepted and in November Mr. Magoon, Consulting Engineer, Caribbean Region, Rockefeller Foundation, visited Belize. In the course of the next few weeks Mr. Magoon visited all the larger District towns and some villages. During these



visits he was accompanied by the Senior Medical Officer and the Director of Public Works and as far as was possible in the limited time at his disposal examined the problem of water supply as it presented itself in each locality. Mr. Magoon then left but promised to return if again invited. If there was one thing made clear above all others in this visit it was that the planning of water supply projects is not the province of a Medical Officer nor any other interested amateur.

5. In January Miss Dora Ibberson, the Social Welfare Adviser to the Comptroller for Development and Welfare in the West Indies visited the Colony. She made an extensive tour of the colony accompanied by the Social Welfare Officer and the Senior Medical Officer. Her observations and advice were much appreciated. It is not too much to say that her visit was of great value; it was in the nature of an injection of new ideas and more purposeful attitudes into that region of public affairs where there is a meeting and mingling of interest of Medical and Social Welfare Departments.

Shortly after the visit of Miss Ibberson, the Social Welfare Officer was transferred to another colony. The Chairmanships of the Social Welfare Committee and the Out-door Relief Committee again reverted to the Senior Medical Officer. The former Committee is purely advisory and there being no Social Welfare Officer to advise the Committee did not meet. The latter Committee directs the distribution of pauper relief and met regularly during the year.

6. *Nursing Staff.* Miss B. McNiel, Staff Nurse, who had been receiving training as a Sister-Tutor in England under a Colonial Development and Welfare Scheme was promoted to Nursing Sister.

Two fully trained Nurses were sent to the West Indian Training School in Jamaica under a Colonial Development and Welfare Scheme to receive further training to fit them for the post of Health Visitor and District Nurse.

The training of these nurses is in furtherance of the scheme whereby each district hospital will have attached to its staff a fully trained nurse experienced in Hospital Routine, but who has had further training in 'extra-mural' nursing techniques. It will be the duty of this nurse to follow the cases, especially children and maternity cases from the wards to their homes and consolidate the good repair of health begun in the hospital. She will ordinarily be the Nurse in Charge of the Infant Welfare Clinic attached to the Hospital. She will in times of staff emergency, which are still regrettably frequent, be able to assume duties in the District Hospital to which she is attached. The system has now been in operation in the Stann Creek District Hospital for one year and it appears to justify itself at least as a half way measure of providing a Public Nursing Service. I referred in my 1945 Report, paragraph (8), to the collapse of the 'Panama Scheme' for the training of Health Visitors for service in the Colony. This 'collapse' has left the city of Belize with only one District Nurse where formerly there were three. This shortage of trained staff must show itself in the restriction of 'home' service especially amongst the children attending the Belize Infant Welfare Clinics. This poses the need for a decision to be taken—whether to station in Belize the Nurses now being trained in Jamaica—or to station them in the District towns. The decision was in favour of the District towns—the infant mortality rates being the deciding factor.

7. *Rural Nursing Service.* I referred in paragraph (8) of my report for 1945 to the inception of a Rural Nursing Service and its repercussions in isolated Rural communities. Mrs. E. Lemott, to whose heroic conduct in the hurricane of October, 1945, I referred in my Report of 1945, was awarded the B.E.M. for her services at that time.

Miss Ibberson during her visit referred to above visited all the nurses in their villages and expressed her admiration for the work they had already accomplished. It was at a suggestion from Miss Ibberson that a new approach to the problem of rural hygiene was adopted. This is the 'shock attack' on a village already prepared. The Maya village of San Antonio was chosen as the site for the experiment. The village had received the ministrations of a resident priest, Father Knop, S.J., who "prepared the way, physical and psychological" for the rural nurses. The rural nurses then in training were unfamiliar with the customs and language of the Maya and for that reason and because of the isolation of the village two nurses were sent to spy out the land. It was explained to them that this was an experiment—that they were being sent as a team for mutual support and encouragement—and that they would stay for not longer than two weeks. They remained at the request of the priest and the Indians for two months—and had to be recalled to complete their training. The success of this experiment was so gratifying and startling that it was

decided to abandon the idea of posting one of these nurses in another (non-Maya) village (where a house had already been built for her) and to try to consolidate the beach-head already won amongst the Maya. While the nurses continued their training a house was begun in the Maya village at San Antonio and by the end of the year under review the nurses, finished their training, were waiting for the completion of the house to move in and continue this valuable experiment. It was because of this change in plan that only one more village over the number in 1946 received a rural nurse during 1946.

8. *Village Midwives.* The training of village midwives referred to in paragraph (9) of my report of 1945 was continued. During the year under review four women received training. One of these four was of such promising material that it was suggested that she should accept further training with the possibility of joining the ranks of Rural Nurses. She accepted the proposal and is now undergoing the further training.

9. *Malaria.* This disease keeps its priority as the most formidable of all causes of death and invalidism. There has not yet been time to organise the effective use of the new synthetic insecticides nor have the new synthetic prophylactic drugs been procurable in the open market.

But both these instruments—of the new malariology were tried out however at the Gallon Jug Mahogany Camp. Dr. A. J. Walker of the Tulane University School of Medicine was invited by the Belize Estate and Produce Company to advise them on the malarial sanitation of this camp, which houses mahogany labourers and their families—amounting to nearly 800 people. Dr. Walker visited the camp in June. The bloods of 568 people were examined and 42 specimens were found positive for the malarial parasite. The bloods examined were of persons ostensibly well.

The rate of infection in men was 3% and in women and children 10%.

Dr. Walker states that it would appear that faciparum malaria is the predominating form with vivax forming about 20%—and more frequently found in children.

He made a collection of anopheline mosquitoes in the camp and its environs and identified the following species—

- a. albimanus
- a. darlingi
- a. vestitipennis
- a. crucians
- a. apimacula
- a. quadrimaculatus.

The last named had not previously been reported from British Honduras.

Dr. Walker organised the spraying of labourers' houses with a D.D.T. Emulsion and at the same time began the prophylactic administration of Chloroquine to labourers "at risk" living in temporary camps away from their homes in Gallon Jug. The success of both these manoeuvres in reducing malaria in the camp was unqualified.

10. *Work of the Belize Hospital.* The inpatients admitted and deaths in the year under review, and those of the two previous years were as follows:—

					1946	1945	1944
Admission	..	..	..	..	2,654	2,557	2,573
Deaths	..	..	..	..	112	114	122

11. *Out-Patients Department, Belize Hospital.* A total of 35,870 attendances were recorded. This figure includes those who attended as ambulatory cases of illness, and also the various clinics including the Dental Clinic, casualty dressing and minor operations.

The Venereal Diseases Clinic suffered the inevitable decline in the absence of a responsible medical officer. It was not till the last few months of the year with the return of the medical officers that systematic diagnosis and treatment could be restarted.

The Eye Clinic was in abeyance for the same reasons.

12. *Maternity Ward: Belize Hospital.* As usual this ward continued to do the seemingly impossible—it increased on its figures for the previous year.

The new ante-natal cases booked numbered 527. There was an admission of 512 mothers with 440 deliveries. Of these 440 deliveries 33 were premature and 13 were still-born. There were four deaths—one of Toxaemia of Pregnancy, one of post-partum haemorrhage, one of cerebral haemorrhage. The fourth was obstructed labour admitted in extremis.

Of the 527 new cases attending for ante-natal attention 34 were found to have a positive Kahn test demonstrating a rate of syphilitic infection amongst a wide cross section of the community of 6.5%. In the previous year the rate was 5%. All ante-natal cases have the haemoglobin of the blood examined. Of a significance probably greater than the syphilitic rate was the fact that fully one of every four pregnant woman had an anaemia ranging from 25% to 70% (10 grams) of haemoglobin.

The deaths all take place in this group.

There were no cases of puerperal septicaemia. There were ten cases of Toxaemia of pregnancy and three cases of Eclampsia. There were twenty neo-natal deaths.

13. *Work of Belize Hospital—Surgical.* The number of major operations done during the year was 208.

14. *Laboratory.* The following figures show the scope of the work of the Hospital laboratory:—

Of 2175 blood smears examined for Malaria Parasites 263 were positive. Of this figure 214 were diagnosed falciparum, 47 vivax and 2 malarial.

Of 2926 bloods examined by Kahn and Hinton Reaction for syphilis—741 were positive.

Of 516 examination of faeces for amoebic cysts 42 were positive.

Other tests and examinations usually done in a clinical laboratory were also performed.

15. *X-Ray.* It is now nearly two years that the Belize Hospital has been without an X-Ray apparatus despite money on the Estimates wherewith to affect its purchase.

16. *School Medical Service.* This service remained in abeyance. Its resuscitation must wait on a full staff of medical officers. Valuable work was done however small in proportion to the need by two Dentists who treated the teeth of some children in selected schools. The following were the observations of one Dentist, Dr. Mayer, on the teeth of the children of two Maya Villages:—

“In San Pedro Columbia 43 school children were examined. 27 had good teeth—one child with ‘total caries’ was a stranger to the village from a family who drank only rain water—in contradiction to the children of the village who drank river water.

In San Antonio 99 school children were examined—40 had good teeth.

In general the teeth of the children in these (inland Indian) villages were much better than those of the villages on the coast”.

Dr. Mayer, however, makes the following comment on the teeth of a coastal village inhabited only by Caribs:—

“I examined 116 school children in the village of Seine Bight. Of these children 81 had perfect teeth—30 children had beginning caries”.

17. *Meals for School Children.* This is a service which is at present undertaken by the Medical Department.

In Belize only a fraction of children who need a substantial meal at mid-day are fed—and in circumstances which militate against an extension of this service.

18. In one village only (so far) is every child given a meal at mid-day on every school day. This is the Carib village of Seine Bight where although the teeth of the children are good *vide supra*—yet there is widespread undernourishment.

But in order to discourage a total dependence on Governmental bounty the Department insisted that the village should provide fish for the meal while the department provided the other ingredients. To assist them in the procuring of the fish the Department ‘loaned’ the villagers a seine. It is with regret that I have to report that so far the experiment has been of dubious value—the villagers being adepts at a war of attrition against a Government department which appears to them to have a determined desire to feed somebody.

In the Maya village of San Antonio milk is distributed to the children daily—it is dried powered milk (imported) mixed at the school. An attempt is now being made to introduce food yeast from Jamaica with this milk.

19. *Table of Vital Statistics.* The following table gives some relevant vital statistics for the year under review and two previous years:—

Birth Rate per 1,000 of population

1946	34.3
1945	33.2
1944	32.6

Death Rate per 1,000 of population

1946	16.9
1945	18.7
1944	18.2

Proportion of Deaths registered by Medical Practitioners

1946	47.6
1945	42.1
1944	45.1

Infantile Mortality

1946	105
1945	140
1944	137

20. The Table gives other relevant information:—

ESTIMATED POPULATION OF THE COLONY BY DISTRICT, 1946.

District	Est. Poputation		Total	Pop. per	Area in	Births	Deaths	Mar-	Infantile
	Males	Femlaes		sq. mile	sq, Miles			riages	Mortality
Belize ..	12,662	14,563	27,225	16.77	1,623	948	365	195	76
						34.8	13.4		8.01
Northern	6,386	6,109	12,495	5.73	2,180	460	196	81	58
						36.8	15.6		12.60
Stann Creek	2,992	3,474	6,466	7.69	840	202	86	35	18
						31.2	13.3		8.90
Toledo	3,171	3,245	6,416	3.01	2,125	217	252	75	41
						33.8	39.2		18.89
Cayo ..	3,929	3,548	7,477	4.08	1,830	240	120	51	24
						32.0	16.0		10.00
COLONY	29,140	30,939	60,079	6.98	8,598	2,065	1,019	437	217
						34.3	16.9		10.50

21. *Still Births.* The Still Births registered for the Colony for the year under review and for the two previous years were:—

1946	—	103
1945	—	62
1944	—	83

22. *District Hospitals.* The following table gives the admissions and deaths of the District Hospitals:—

				1944		1945		1946	
				Adm.	Deaths	Adm.	Deaths	Adm.	Deaths
Corozal ..	..	..	..	563	20	340	18	294	10
Orange Walk	..	..	..	270	8	250	7	190	7
Cayo ..	..	..	..	344	23	328	22	287	25
Toledo ..	..	..	..	458	10	549	6	564	12
Stann Creek	..	..	..	660	36	612	25	736	23

23. *Sanitary Inspectors.* One Sanitary Inspector who had been receiving training at the West Indian Training Centre in Kingston, Jamaica, returned after completing his training. At his return another Sanitary Inspector was sent to receive the same training.

24. *Housing.* A Housing and Town Planning Committee had been appointed in the year 1944 to consider in parts the appalling Housing Situation in the Colony and to recommend steps for its alleviation.

The Committee had the invaluable aid and guidance of Mr. R. Gardner-Medwin, Town Planning Adviser to the Comptroller for Development and Welfare in the West Indies.

The Committee finally embodied their recommendation in three Bills and a tentative Plan for reshaping the City of Belize. Should these recommendations become law a separate authority will be created—the Housing and Town Planning Authority whose duty it will be to direct the activities implied in its name.

As part of its activities the Committee under a grant from Colonial Development and Welfare constructed two small groups of experimental houses. They were completed—but could not be used owing to the inability of the Committee to provide adequate water supply.

In my report for 1943 I wrote—“The housing situation in Belize remains a dire problem. For years this problem has given great concern but it has now reached critical proportions—it is not only workers’ houses but houses for all classes that are needed”. My comment of 1943 is also my comment of 1946—with, if possible, greater emphasis.

25. *Infectious Diseases.* It is now unfortunately true to say that all the five districts of the Colony reported cases of typhoid fever.

In Belize there were 32 cases notified with eight deaths; in Stann Creek there were six cases notified with no deaths, in the Northern Districts there were 16 cases notified with three deaths; in Cayo there was one case notified; in Toledo there were 10 cases notified with 3 deaths.

TUBERCULOSIS.

26. The cases notified in Belize were 46 with 27 deaths; in Stann Creek 18 cases were notified with 10 deaths; the Northern Districts there were 16 cases notified with five deaths; in Cayo district there were no cases notified—in the Toledo District there were 6 cases notified with 3 deaths.

In my 1944 Report I commented on the hope of the new anti-biotics or synthetics in the treatment of Tuberculosis in this Colony. I said “It is true that the anti-biotic or synthetic of choice does not yet exist—but the promise of their advent is certainly brighter than the hope of social prophylaxis in the shape of good housing and good nutrition.”

The situation is no brighter in 1946—in fact I believe I am correct in saying that it has deteriorated.

27. I would wish to record the great pleasure and stimulus the Department received from the visit of Miss E. McManus, C.B.E. and Miss Shenton, the Nursing Officials sent out by the Colonial Office to study the training of Nurses in the British West Indies.

28. On 9th April a general census of the Colony was taken. The results show—

					1931	1946
THE COLONY					51,347	59,237
<i>Towns—</i>						
Belize	..	..	..	..	16,687	21,843
Corozal	..	..	..	..	2,197	2,193
Orange Walk	..	..	..	..	1,099	1,280
Stann Creek	..	..	..	..	2,844	3,414
Punta Gorda	..	..	..	..	1,119	1,374
Cayo	..	..	..	..	1,260	1,548

29. *Infantile Mortality.* The Infantile Mortality for the year under review and the two previous years for each district was as follows:—

				1946	1945	1944
Belize	..	..	..	76	83	85
Northern	..	..	..	126	142	133
Cayo	..	..	..	100	190	162
Stann Creek	..	..	..	89	125	114
Toledo	..	..	..	188	270	272

INFANTILE MORTALITY: BELIZE.

30. The figures from the two Infant Welfare Clinics of Belize are especially interesting.

Of 367 infants “brought forward” from 1945 as under one year of age seven died when still under one year of age.

Of 484 entered in 1946 seven infants died while still under one year of age.

There was thus a total of fourteen deaths under one year of age amongst 851 infants—giving an Infantile Mortality Rate of 17 per 1000.

This figure of 17 per 1000 amongst the infants in Belize who attend the Infant Welfare Clinics is a tribute to the work of Miss L. M. Roberts, Matron of the Belize Hospital.

This figure of 17 per 1000 and the comparable figure of 188 per 1000 in the Toledo district probably is a good numerical index of the relative advantages which the people of Belize enjoy compared to those of the backwoods of the Toledo and other districts.

31. *Belize Lunatic Asylum.* An apparatus for the application of Electric Convulsion Therapy was installed in the Belize Lunatic Asylum during the latter part of the year. Although the period of observation was not longer than a few weeks it had already become evident that in carefully selected cases the therapeutic results were such as the most optimistic reports had indicated as possible.

32. The Senior Medical Officer was twice absent from the Colony on Government business during the year under review. He was one of the two delegates representing British Honduras at the Conference of the Caribbean Commission at St. Thomas, Virgin Islands.

He also represented British Honduras at the Meeting held in Jamaica of the Provisional Council of the University College of the West Indies.

VERNON F. ANDERSON,

Senior Medical Officer.

